

Remarks:

Reconsideration of this patent application is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 42, 44-62, 64-89, 91, and 93 are rejected under 35 U.S.C. 112, second paragraph.

Claims 61, 81, and 93 have been amended to overcome this rejection.

Claims 42, 44-62, 64-89, 91, and 93-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berger (GB 2016984 A) in view of Schach et al. (WO 2004028702 A1, used US Pub. No. US 20060124762 A), Sugiyama (GB 2174942 A), and Cornell Jr. (US 3338492).

It is respectfully submitted that the present invention as claimed in claims 61, 81, 93 and 94 is substantially different from the above cited documents taken either singularly or in combination.

For example, claim 61 includes the following passage:

wherein the drive sleeve of the drive mechanism is formed with an internal thread adapted to the contour of said transport elements and engaged by at least one transport element of the plurality of transport elements.

In addition claim 81 includes the following:

(d) a drive sleeve connected with at least one transport element of each guiding element, wherein said drive sleeve has an internal thread adapted to the contour of said plurality of transport elements, and engaged by at least one transport element of said plurality of transport elements;

Claim 93 includes the following:

wherein the drive mechanism has a drive sleeve that is formed with an internal thread adapted to the contour of said transport elements and engaged by at least one transport element of the plurality of transport elements wherein said plurality of transport elements move in a circulating manner within the guide path.

Furthermore claim 94 includes the following:

(d) a drive sleeve connected with at least one transport element of each guiding element, wherein said drive sleeve has an internal thread adapted to the contour of said plurality of transport elements, and engaged by at least one transport element of said plurality of transport elements;

It is respectfully submitted that the above cited documents, particularly Berger does not disclose this feature. For example, while Berger discloses threads, these threads are not configured to engage transport elements as claimed in claims 61, 81, 93 and 94.

In addition, U.S. Patent No. 3,338,492 to Cornell shows in figures 4 and 5 a wire feeding roller means, where the transport elements 66 and 71 are not responsible for the transport of the wire but are necessary to enable a one-way motion of the roller 28. The wire is not conveyed by the transport elements (66, 71) but within a groove between the rollers 28 and 36 (see figures 1 and 2 of US 3,338,492 A).

An example of this feature is shown in FIG. 14 of the present invention which discloses a thread 36 formed in a drive sleeve 37. The transport elements such as transport elements 33 are configured to move inside the thread of the guide sleeve. These transport elements are configured to engage the threads of the guide sleeve as indicated on page 14 last paragraph.

The engagement of these transport elements along the thread allows for several pressure points to be formed on the welding wire 13 so as to ensure the safe feeding of the welding wire 13. This feature is described on page 15 lines 13-15.

Since the above identified documents do not disclose the above recited features of the present invention as claimed in claims 61, 81, 93, and 94, it is respectfully submitted that the present invention as claimed in these claims is patentable over the above identified documents taken either singularly or in combination.

Additional claims 95-97 are also being added which further emphasize these features as well as other additional features.

Support for these additional claims can be found in paragraph 82 of the published application which states:

...By rotating the drive means 37, the respective transport element 33 engaging the thread 36 is conveyed in the peripheral guide path 32 of the element 28 or half-shells 30. The rotation of the thread 36, thus, causes a displacement of the engaging transport element 33, which, in turn, causes the other transport elements 33 to be displaced too. Advantageously, several transport elements 33 engage the thread 36 simultaneously so as to ensure the safe displacement of the transport elements 33 along the guide path 32. With such a construction, in which several transport elements 33 act on the welding wire 13 at the same time, it is achieved in an advantageous manner that several pressure points are formed on the welding wire 13 so as to ensure the safe feeding of the welding wire 13.

In conclusion, claims 61, 81, and 93 have been amended. New claims 95-98 have been added. No new matter has been added. Accordingly early allowance of the remaining claims is respectfully requested.

Respectfully Submitted,

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